

What is claimed is:

1. A transmitter for sending signals over wireless channels, a modulator (3) performing a modulation of the signals to be sent, and the modulated signals being distributed among various subcarriers, a predistorter (4) predistorting the signals, distributed among various subcarriers, according to the transfer properties of an amplifier (8), a mixer (7) converting the predistorted signals from a baseband into an intermediate frequency, the amplifier (8) amplifying the converted signals, an antenna (9) sending a first portion of the amplified signals, a mixer (10) mixing a second portion of the amplified signals down from the intermediate frequency to the baseband, a measurement module (12) comparing the mixed-down signals with the predistorted signals to determine the transfer properties of the amplifier (8) and notifying the predistorter (4) of the transfer properties of the amplifier (8), wherein a signal generator (13) generates a test signal, an input (5) inputs the test signal into the signals at preset times, and the measurement module (12) compares the test signal in the mixed-down signals with the test signal in the signals to obtain the transfer properties of the amplifier (8).

2. The transmitter according to Claim 1, wherein the input (5) inputs the test signal into the predistorted signals at preset times, and the measurement module (12) compares the test signal in the mixed-down signals with the test signal in the predistorted signals to determine the transfer properties of the amplifier (8).

3. The transmitter according to Claim 1, wherein the input (5) inputs the test signal upstream from the predistorter (4), and the predistorter (4) is loaded with a set of constant values.

4. The transmitter according to Claim 1, wherein the modulator (3) performs a differential phase modulation, preferably differential quadrature phase shift keying.

5. The transmitter according to Claim 1, wherein the signal generator (13) generates the test signal having an envelope which is not dependent on time.

6. A method of sending signals over wireless channels, the signals to be sent being modulated, the modulated signals being distributed among subcarriers, the signals, distributed among the subcarriers, being predistorted according to the transfer properties of an amplifier (8), the predistorted signals being converted from a baseband into an intermediate frequency, the converted signals being amplified, a first portion of the amplified signals being sent over the wireless channels, a second portion of the amplified signals being converted from an intermediate frequency to the baseband, the predistorted signals and the signals converted to the baseband being compared to determine the transfer properties of the amplifier (8), and then this information being sent to a predistorter (4), wherein test signals are generated, the test signals are input into the signals at preset times, and the test signal in the signals is compared with the test signal of the signals amplified and converted to the baseband to determine the transfer properties of the amplifier (8).

7. The method according to Claim 6,  
wherein the test signal is input into the predistorted signals.

8. The method according to Claim 6,  
wherein the test signal is input upstream from the predistorter (4), the predistorter being loaded with constant values.

9. The method according to Claim 6,  
wherein an amplitude of the test signal is increased incrementally up to a preset size to measure a control range of the amplifier (8).

10. The method according to Claim 6,  
wherein the amplitude of the test signal has a size such that the control settings of the amplifier (8) are at least fully adjusted by the test signal.

11. The method according to Claim 10,  
wherein samples of the test signal are used to determine the transfer properties of the amplifier (8).

12. The method according to Claim 9 or 11,

wherein the test signal is input into a synchronization symbol.

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